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Lorri W Cooper  
Jones Day  
North Point  
901 Lakeside Avenue  
Cleveland, OH 44114

EXAMINER
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DUNLAP, JONATHAN M

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2855

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/529,921	<b>Applicant(s)</b> CROSS ET AL.	
	<b>Examiner</b> Jonathan Dunlap	<b>Art Unit</b> 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/01/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the jackscrews, sensor for controlling clamping operation, sensor for location modules and the breakaway portions must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 11, 14 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Koike et al. (US Patent 5305650).

Considering claim 1, Koike discloses a workstation for providing samples comprising:

- at least a platform **base**, which has at least one module **11** with at least one reservoir for a chemical educt and at least one module **10** with at least one target container;
- a metering system **12** for the metering of the sample;
- a portal system **13**, which is arranged above the platform and which maneuvers the metering system in all three directions in space;
- a control device **100** for controlling the movements of the metering system **12**; and
- a measuring system **302** for the samples, characterized in that wherein the metering system has a gripper device for the uptake of a metering tool, which is supported within at least one module **12** on the platform, and wherein the measuring system **302** is on the same platform as the metering system and the measuring system **302** is a gravimetric load cell

**(All found in Figures 1, 4-6 and 18; Column 2, lines 1-68; Column 3, lines 1-4; Column 5. lines 29-68, Column 6, lines 1-24; Column 9, lines 3-51; Column 13, lines 50-68; Column 14, lines 1-4, The term "integral" does not require a unitary one-piece structure. In re**

**Kohno, 391 F.2d 959, 157 USPQ 275 (CCPA 1968); In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965))**

Considering claim 11, Koike discloses that the measuring system **302** is arranged as a module on the platform (**Figure 18**).

Considering claim 14, Koike discloses that the metering system has a pump **303** and a connection for a liquid **309 (Figure 19; Column 13, lines 23-46)**.

Considering claim 16, Koike discloses that the platform further has at least one module with a heating device **64** and/or at least one module with a mixing device **58-61 (Figure 3; Column 8, lines 9-52)**.

Considering claim 17, Koike discloses that the metering system has at least one sensor for the detection of the position of the modules (**Column 5, lines 4-18; Column 6, lines 1-24, lines 53-68; Column 9, lines 12-51**).

Considering claim 18, disclose that the modules have at least one marking, which is detectable by the sensor (**Column 5, lines 4-18; Column 6, lines 1-24, lines 53-68; Column 9, lines 12-51**).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike et al. (US Patent 5305650) in view of Yakou (US Patent 5150937).

Considering claim 2, Koike discloses that the gripper device has two support means being faced diametrically, which are movable in a concentric manner towards each other (**Figures 6-7**).

The invention by Koike fails to disclose that there are four supports.

However, Yakou teaches the use of a four supports (**Figure 13; Column 13, lines 62-68; Column 14, lines 1-29**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize four supports in the invention by Koike as taught by Yakou. The motivation for doing so is found in the teachings of Yakou, "four finger members are set in a cross-shape...a work can be clamped by their four surfaces...as a result, the work can be clamped while being aligned," which shows that four supports are better at maintaining a proper grip than two supports (**Column 15, lines 22-47**).

Considering claim 3, Koike fails to disclose that two support means are supported in a pair of linear orientated slide bars, respectively, wherein the pairs of slide bars are arranged perpendicularly towards each other.

However, Yakou teaches the use of two support means are supported in a pair of linear orientated slide bars, respectively, wherein the pairs of slide bars are arranged perpendicularly towards each other (**Figure 13**).

Considering claim 4, Koike discloses that the support means have a geometry, which allows a form-complementary clamping with the geometry of the metering tool (**Figures 6-7**).

Yakou also teaches the use of four supports with a complementary geometry  
**(Figure 13; Column 14, lines 60-68; Column 15, lines 1-47).**

Considering claim 5, Koike discloses that the support means are exchangeable  
**(Column 6, lines 25-46).**

Considering claim 9, Koike fails to disclose that the support means are activated pneumatically for the clamping.

6. However, Yakou teaches the use of pneumatics for clamping the support means  
**(Column 8, lines 55-59).**

The invention by Koike teaches a method of moving the support means. The invention by Yakou teaches an alternate method of moving the support means. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to utilize any known method of moving the support means that would have been able to obtain predictable results. Therefore, the use of the pneumatics, as taught by Yakou, would have been recognized as an appropriate means for moving the support means and would have reached predictable results.

Considering claim 10, Koike fails to disclose that the support means are coupled with at least one sensor, which controls the clamping process.

7. However, Yakou teaches the use of a sensor coupled with the support means to control the clamping process **(Column 10, lines 5-62).**

8. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a sensor coupled with the support means to control the clamping process as taught by Yakou in the invention by Koike. The



motivation for doing so is found in the teachings of Yakou, "[t]he control unit also comprises a memory section for storing shape data unique to works. The shape data includes data indicating out dimension of each work, and separation angle data of the first to third finger members necessary for attaining optimal pickup positions when a work is to be picked up" (**Column 10, lines 36-52**).

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koike et al. (US Patent 5305650) in view of Yakou (US Patent 5150937) as applied to claim 5 above, and further in view of either Schaefer et al. (US Patent 3843187) or Hennekes et al. (US Patent 4500065).

Considering claim 6, the invention by Koike, as modified by Yakou fails to disclose that the support means have a breaking point, in such a way that by breaking of said breaking point an overload of the gripper device or of the object gripped therewith is minimized or avoided.

10. However, as shown in the disclosure of Schaefer (**Column 3, lines 10-50**) and Hennekes (**Column 3, lines 56-68; Column 4, lines 1-22, lines 55-68**), the use of break away support members in a robotic gripper is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a break away support means as taught by either Schaefer or Hennekes in the invention by Koike, as modified by Yakou. The addition of the break away support means would be seen as an improvement to the invention of Koike, as modified by Yakou, and one of ordinary skill in the art at the time the invention was made would

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have recognized that the addition of the break away support means would have realized predictable results.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koike et al. (US Patent 5305650) in view of Yakou (US Patent 5150937) as applied to claim 5 above, and further in view of either Schaefer et al. (US Patent 3843187) or Hennekes et al. (US Patent 4500065) as applied to claim 6 above, and furthermore in view of Jokes et al. (US Patent 6455002).

Considering claim 7, the invention by Koike, as modified by Yakou and Schaefer or Hennekes, fails to disclose that support means has an adhesion layer for an increased adhesion.

12. However, Jokes teaches the use of an additional layer of material placed on the support means for the purpose of increased adhesion (**Column 3, lines 42-57**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize an adhesion layer on the support means as taught by Jokes in the invention by Koike, as modified by Yakou and Schaefer or Hennekes. The motivation for doing so is found in the teachings of Jokes, "[t]he gripper fingers have, on their end regions, grooved contact surfaces which face on another and are covered with a nonslip, resilient coating...for improved adhesion" (**Column 3, lines 51-55**)

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13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koike et al. (US Patent 5305650) in view of Yakou (US Patent 5150937) as applied to claim 2 above, and further in view of Smith et al. (US Patent 6296635).

Considering claim 8, the invention by Koike, as modified by Yakou, fails to disclose that the support means are movable by means of electrically activated jackscrews.

14. However, Smith teaches the use of electrically activated jackscrews to move support means (**Column 7, lines 63-67; Column 8, lines 1-4; Column 6, lines 53-66; rotary motors are electric, therefore, it would have been obvious to utilize electrically motorized jackscrews**).

The invention by Koike, as modified by Yakou, teaches multiple methods of moving the support means. The invention by Smith also teaches alternate methods of moving the support means. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to utilize any known method of moving the support means that would have been able to obtain predictable results. Therefore, the use of the electrically activated jackscrews, as taught by Smith, would have been recognized as an appropriate means for moving the support means and would have reached predictable results.

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koike et al. (US Patent 5305650) in view of Guhl (GB 2 284 901 A).

Considering claim 15, Koike fails to disclose that the metering system has a vibration device in order to excite the metering tool into a defined vibration.

16. However, Gul teaches the use of a vibration device to excite the metering tool **(Page 3, 6<sup>th</sup> Paragraph)**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a vibration device in order to excite the metering tool as taught by in the invention by Koike, as modified by Yakou. The motivation for doing so is found in the teachings of , “[b]y shaking the sample substance during the filling procedure a clogging of the sample substance due to static friction is largely prevented, clumps are broken-up, the surface is levelled and a practically continuous pouring occurs at a slow filling rate” **(Page 3, 6th Paragraph)**.

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Dunlap whose telephone number is (571)270-1335. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward Lefkowitz/

Supervisory Patent Examiner, Art Unit 2855

/J. D./

Examiner, Art Unit 2855

June 1, 2008